

IN THE SPECIFICATION:

*Please replace the first paragraph of the application, beginning at page 1, line 3, with the following:*

This is a continuation of U.S. Application No. 10/325,911, which is a non-provisional application that claims the benefit of U.S. Provisional Application 60/132,490 entitled “AT&T Information Classification System” which was filed on May 4, 1999, and US Provisional Application 60/134,369 entitled “AT&T Information Classification System” which was filed May 14, 1999, both of which are hereby incorporated by reference in their entirety. ~~The applicants of the Provisional Applications are David D. Lewis, Amitabh Jumar Singhal, and Daniel L. Stern (Attorney Docket No. 1999-0220) and David D. Lewis and Daniel L. Stern (Attorney Docket No. 1999-0139).~~

*Please replace the Abstract (page 14, lines 2-20) with the following: --*

~~A method and apparatus for communicating accumulated state information between internal and external tasks in a supervised learning system. A supervised learning system encodes state information for a hypothetical learning task on initialization. This hypothetical learning tasks state information indicated that no training instances have been received. During the supervised learning, training instances are presented to the supervised learner. The training instances are encoded with feature vector and target value information. For each task name paired with a non-default target value, the learner initializes a new learning task by copying the hypothetical learning task state representation for use as the state representation for the new learning task. Predictors are then produced for all learning tasks, except the hypothetical learning task. The new training instance it then used to update the hypothetical learning task state representation as a negative example. Further training instances are handled similarly, new learning tasks are started based on the examination of the spare target vector for task name, target value pairs which match received training instance target values and for which tasks have not yet been started. They hypothetical state representation information is copied to create the initial states for the new task thereby encapsulating the previous training instance in the new learning tasks state representation.~~

Apparatus for adding new learning tasks to an incremental supervised learner provides a flexible incremental representation of all encountered training examples, thereby permitting state representations for new learning tasks to take advantage of incremental training already completed by encoding all past training examples as negative examples for a hypothetical learning task. The state representation of the hypothetical learning task is copied as the initial state representation for a new learning task to be initiated, and is initialized with negative training examples of all previously presented training examples, thereby permitting the learning task to efficiently incorporate the previous examples.